

# **DRUG-RELATED MORTALITY**

## Arizona, 1988-1998



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# DRUG-RELATED MORTALITY

## ARIZONA, 1988-1998

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BY

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MAY 2000

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# DRUG-RELATED MORTALITY, ARIZONA, 1988-1998

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## Purpose

This report is to provide information on drug-related mortality among Arizona residents. The data for 1998 are placed in a temporal context by comparison with the data for the preceding ten years.

## Methods and Sources

Data on the number and characteristics of drug-related deaths among Arizona residents were obtained from the death certificates filed with the Arizona Department of Health Services.

Population denominators for Arizona residents, used to calculate rates, are projections from the Population Statistics Unit in the Arizona Department of Economic Security (data for 1988-1989 and 1993-1998) and the U.S. Census Bureau (data for 1990 and ethnic group data for 1998). Detailed population data by gender, age and county were unavailable for 1991-1992. In order to obtain the population denominators for these two years, the 1990 percentages of population breakdowns (or census

shares) were applied to 1991 and 1992 total state or county population estimates published by the DES.

In this report, drug-related fatalities are classified in terms of circumstances and conditions resulting in death such as:

- **Drug dependence and drug abuse**
- **suicide** by drugs
- **homicide** by drugs
- **accidents in the use of drugs** (such as accidental overdose or wrong substance given or taken in error)
- **adverse effects of drugs** in therapeutic or prophylactic dosage
- **poisoning by drugs, where it was undetermined** whether it was unintentionally or purposely inflicted

Whenever possible, drug-related deaths are classified also in terms of type of drug causing fatal poisoning, such as cocaine, morphine, barbiturates, non-barbiturate sedatives and tranquilizers, antidepressants, hallucinogens, and psycho-stimulants, as well as other, mixed and unspecified drugs. A detailed cross-classification by these two dimensions of the ICD-9 codes relevant to drug-related mortality is given on the following page.

---

*\*International Statistical Classification of Diseases, Injuries and Causes of Death.*  
Geneva: World Health Organization, 1977.

**CLASSIFICATION OF ICD-9 CODES FOR UNDERLYING CAUSE OF DRUG-RELATED MORTALITY BY TYPE OF DRUG AND CIRCUMSTANCES AND CONDITIONS RESULTING IN DEATH**

Circumstances and Conditions Resulting in Death	TYPE OF DRUG:			
	Cocaine Type <sup>a</sup>	Morphine Type <sup>b</sup>	Barbiturates, Tranquilizers and Other Psychotropic Agents <sup>c</sup>	Other, Mixed and Unspecified
<b>Drug Dependence and Drug Abuse<sup>d</sup></b>	304.2, 305.6	304.0, 304.7, 305.5	292.1, 304.1, 304.3-304.5, 304.8, 305.2-305.4, 305.7-305.8	292.0, 292.2, 292.8-292.9, 304.6, 304.9, 305.9
<b>Accidental Drug Misuse/Unintentional Poisoning by Drugs<sup>e</sup></b>	855.2, 938.5	850.0, 935.0	851-855.1, 855.3-855.9, 937.0-938.4, 938.6-941.9	850.01-850.9, 856-858, 930-934, 935.1-936.4, 942-949
<b>Suicidal Poisoning</b>	NO ICD-9 CODES	NO ICD-9 CODES	950.1-950.3	950.0, 950.4-950.5
<b>Homicidal Poisoning</b>	NO ICD-9 CODES	NO ICD-9 CODES	NO ICD-9 CODES	962.0
<b>Poisoning Undetermined Whether Accidentally or Purposely Inflicted</b>	NO ICD-9 CODES	NO ICD-9 CODES	980.1-980.3	980.0, 980.4-980.5

<sup>a</sup> Cocaine leaves and derivatives

<sup>b</sup> Heroin, methadone, opium and combinations of morphine type with any other drug.

<sup>c</sup> Barbiturates, non-barbiturate sedatives and tranquilizers, antidepressants, hallucinogens, psychostimulants.

<sup>d</sup> Organic psychotic conditions and non-psychotic mental disorders associated with intake of drugs. Includes:

drug psychoses (292.0-292.9)

drug dependence (304.0-304.9)

non-dependent abuse of drugs (305.2-305.9)

Excludes: alcoholic psychoses, alcohol abuse, tobacco abuse.

<sup>e</sup> Includes drugs and medicaments causing adverse effects in therapeutic use (ICD E930-E949).



Originally, this report was designed to provide data on poisoning by misuse of, abuse of, or dependence on selected substances other than alcohol and tobacco. Previous editions excluded poisoning by antibiotics, vaccines and non-psychoactive agents which primarily affect blood constituents, cardiovascular system, skeletal muscles or respiratory system. For comparability with national data, the definition of drug-related deaths was revised to include all categories of medications.

## Data Organization

Tables 1, 2, 5, 6, 10, 12, 14, 16 describe drug-related mortality in the 1988-1998 period in terms of circumstances and conditions resulting in death. Tables 3, 4, 7, 11, 13, 15, 17, 19 describe drug-related mortality in terms of type of drug causing fatal poisoning. The differences in drug-related mortality are shown by such factors as ethnicity, gender, marital status, urban/rural region of residence, type of drug and age group.

## Key Findings

This section presents some illustrative findings contained in the figures and tables of the report. It is not intended to be an exhaustive analysis of the tabulated data.

It is impossible to determine how accurately the reported number of drug-related deaths reflects the true incidence of mortality from drug abuse/dependence. Some reasons for underreporting are:

- 1) social and family pressures to avoid stigmatization and
- 2) incomplete information at the time of death about the decedent's history of drug use. For these reasons drug dependence and drug abuse may not be given as the cause of death; instead another, less accurate category of underlying cause (e.g. unintentional drug misuse) is used.

From 1988 to 1998, 3,417 Arizona residents died from drug poisoning in various circumstances. In the four years from 1988 to 1991 there were 758 deaths, or an average number of 189 deaths per year. In the seven years from 1992 to 1998, there were 2,659 drug-related deaths, and the annual average number of deaths of about 380 was 2 times higher than during the previous, four-year

period (the number of drug-related deaths by year is given in [Table 1](#)). This increase may reflect either improved reporting or a true increase in incidence, or both.

- The age-adjusted rate of death from drug poisoning due to all reported circumstances increased from 8.5 drug-related deaths per 100,000 Arizona residents in 1997, to 10.6/100,000 in 1998. It was the highest rate of the 1988-1998 period ([Table 2](#)).

- The rate of deaths from reported adverse effects and accidents in the use of drugs was 2.9 times higher in 1998 (7.8/100,000) as compared to the 1988 rate of 2.7/100,000. The rate of deaths from drug dependence and abuse in 1998 (0.3/100,000) was the second lowest rate in the 1988-1998 time period ([Figure 1](#), [Table 2](#)).

- The number of deaths due to accidental overdose of amphetamines declined from 13 deaths in 1997 to 7 deaths in 1998 ([Figure 2](#), [Table 2](#)). In 1998, 75 deaths had a morphine type drug reported as the agent compared to 50 deaths in 1997, and 14 deaths in 1988 ([Table 3](#)).

- Since 1989, annual mortality rates for cocaine and morphine type drugs combined have consistently exceeded the rates of death due to poisoning by

barbiturates, tranquilizers and other psychotropic agents ([Table 4](#)). The 1998 rate of deaths from morphine type drugs (1.6/100,000) was 4 times greater than the 1988 rate ([Table 4](#)).

- Non-Hispanic white residents of Arizona had in 1998 the highest rate of drug-related death (11.9/100,000), exceeding the corresponding rates for Blacks, Hispanics and American Indians by at least 9 percent ([Figure 3](#), [Table 8](#)).

- The 1998 rate of deaths from drug dependence, abuse and misuse among American Indians (0.8/100,000) was 2.7 times greater than that of non-Hispanic whites and Hispanics (0.3/100,000; [Figure 4](#), [Table 8](#)). In contrast, non-Hispanic whites had the highest rate of death for suicidal poisoning by drugs (2.6/100,000) ([Table 8](#)).

- Morphine type drugs (heroin, methadone, opium and combination of morphine with any other drug) were responsible for more deaths than cocaine-type drugs among American Indians, Hispanics and non-Hispanic whites, ([Figure 5](#), [Table 8](#)).

- Cocaine-type drugs were responsible for 33 percent of drug-related deaths among Blacks compared to 17 percent in 1997. The 1998 rate of cocaine-related deaths among Blacks

(3.6/100,000) was 6 times greater than that of non-Hispanic whites (0.6/100,000) ([Figure 5](#), [Table 8](#)).

□ Among persons aged 20-44 years ([Figure 6](#), [Table 8](#)), American Indian residents of Arizona in 1998 were 24 percent more likely to have been victims of fatal drug poisoning (24.5/100,000) compared with the overall risk of 19.7 for all ethnic groups. Among Arizonans 45-64 years old, the overall risk of drug-related death was 2 times greater for Blacks than their Hispanic peers (22.8 vs. 11.1, [Figure 6](#), [Table 8](#)).

□ The 1998 rate of drug-related deaths among males (15.2/100,000) was 2.4 times greater than the rate of 6.3/100,000 for females ([Figure 7](#), [Table 14](#)). The rate of deaths from drug dependence and abuse was 6 times greater among males (0.6/100,000) than females (0.1/100,000). The male mortality rate from cocaine and morphine combined was 4.4 times higher than respective female rate ([Figure 8](#), [Table 15](#)).

□ Males, who accounted for 70.7 percent of all drug-related deaths in 1998 had an even greater proportional representation among reported deaths from accidental drug misuse (78.4 percent). Their share of cocaine/morphine-related deaths was 82.6 percent.

□ Seventy-one out of every 100 drug-related deaths in 1998 were to unmarried Arizona residents ([Table 16](#), [Table 17](#)).

□ More than eighty percent of deaths in 1998 attributed to drug abuse or dependence were young adults 20-44 years old. Drug-related deaths in which cocaine or morphine were reported as the agent were predominantly (73.9 percent, or 85 out of 115 deaths in 1998) a young adult phenomenon ([Table 11](#)).

□ One of the objectives set by the U.S. Public Health Service for the year 2000 is that the rate of drug-related deaths should be reduced to 3.3/100,000. Arizona residents were much closer to this proposed objective in 1990 than they were in 1997 or 1998 ([Table 2](#)). In 1990, the age-adjusted drug-related mortality rate (4.6/100,000) for Arizonans exceeded the year 2000 national objective by 40 percent. In 1998, the Arizona rate of drug-related deaths was 2.2 times greater than the year 2000 target rate.

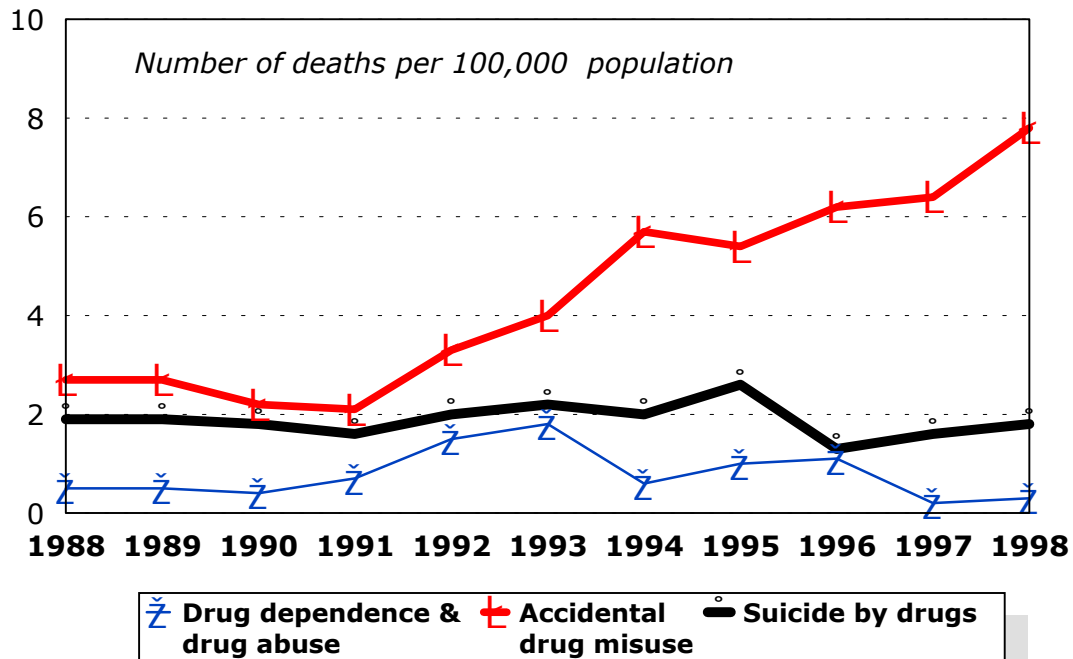
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DRUG-RELATED MORTALITY, ARIZONA, 1988-1998

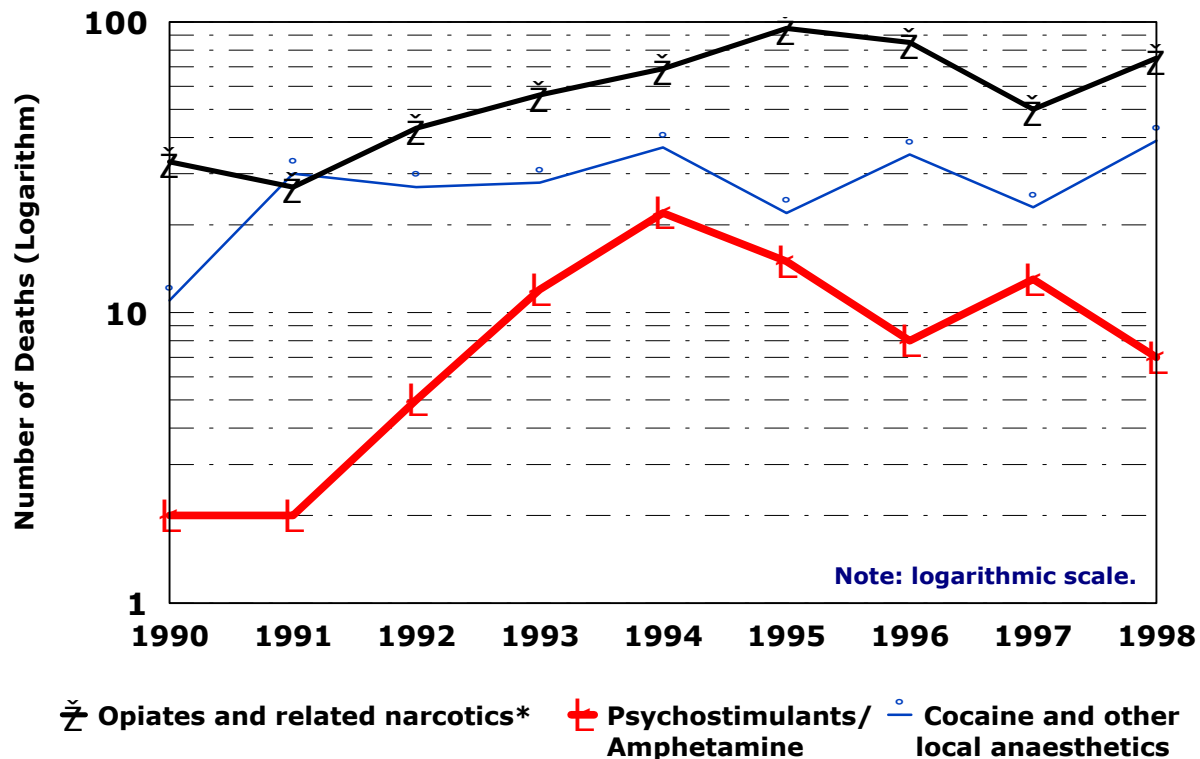
# FIGURES

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**FIGURE 1**  
**DRUG-RELATED DEATH RATES BY MORTALITY CATEGORY AND YEAR,**  
**ARIZONA, 1988-1998**

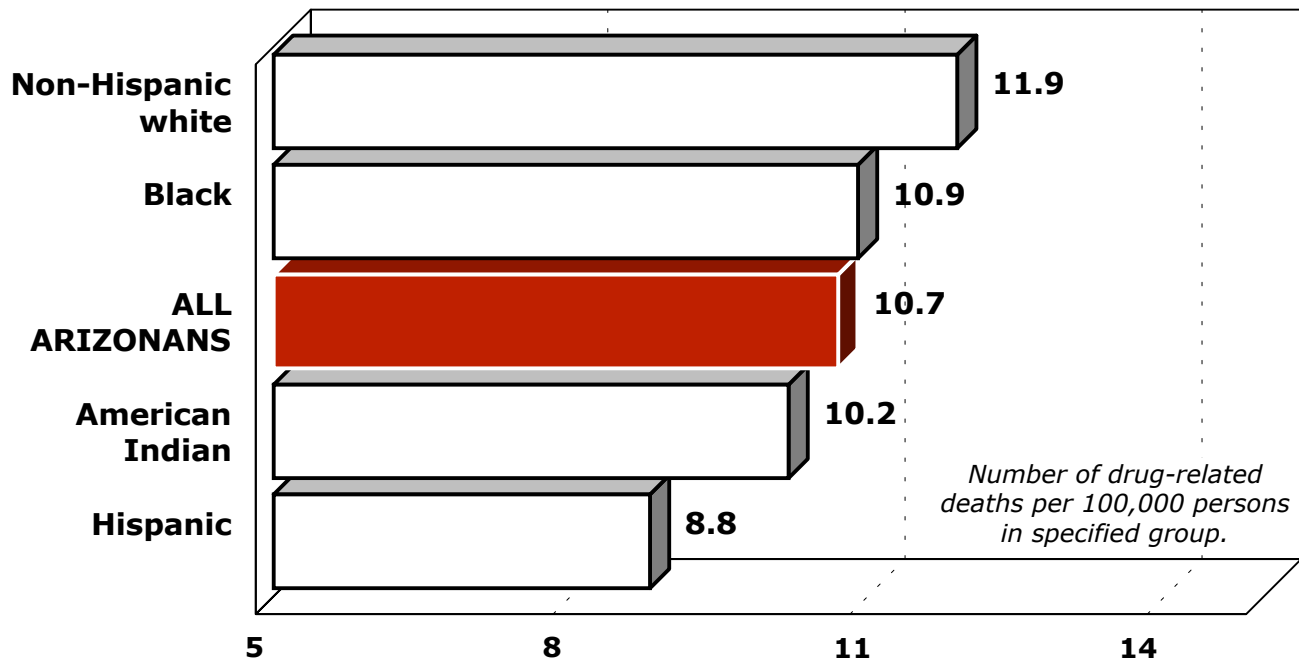


**FIGURE 2**  
**CHANGES IN THE NUMBER OF FATAL UNINTENTIONAL POISONING**  
**FOR SELECTED TYPES OF DRUGS, ARIZONA, 1990-1998**



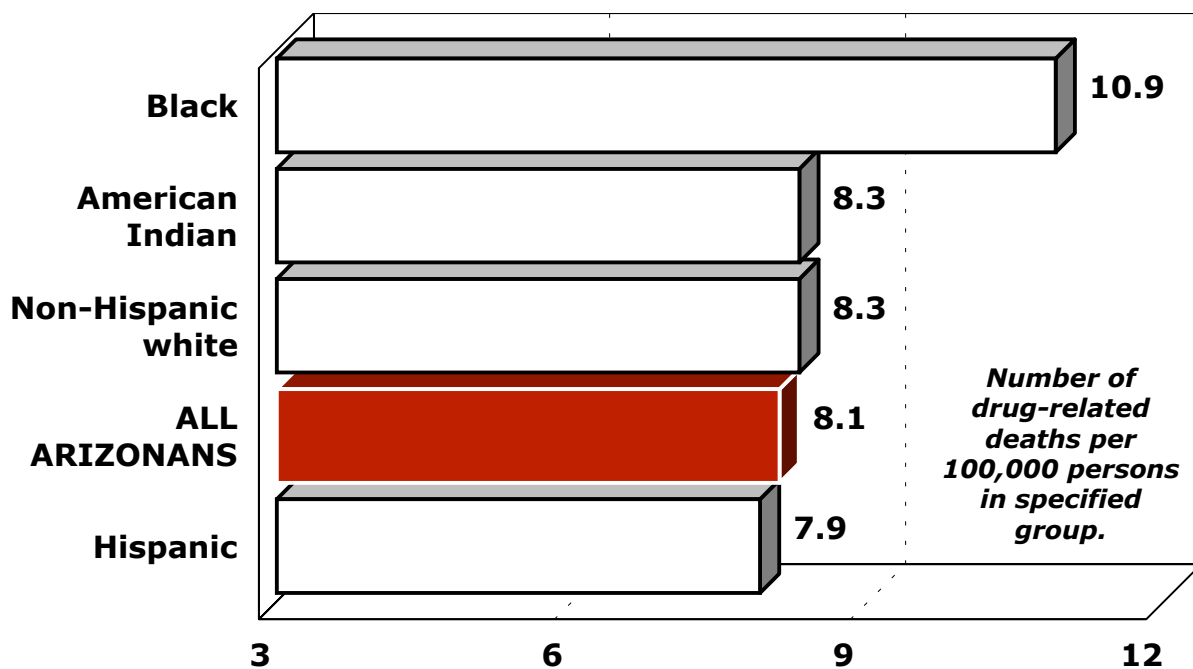
\* Heroin, methadone, codeine, morphine, opium.

**FIGURE 3**  
**DRUG-RELATED DEATH RATES BY ETHNIC GROUP,**  
**ARIZONA, 1998**



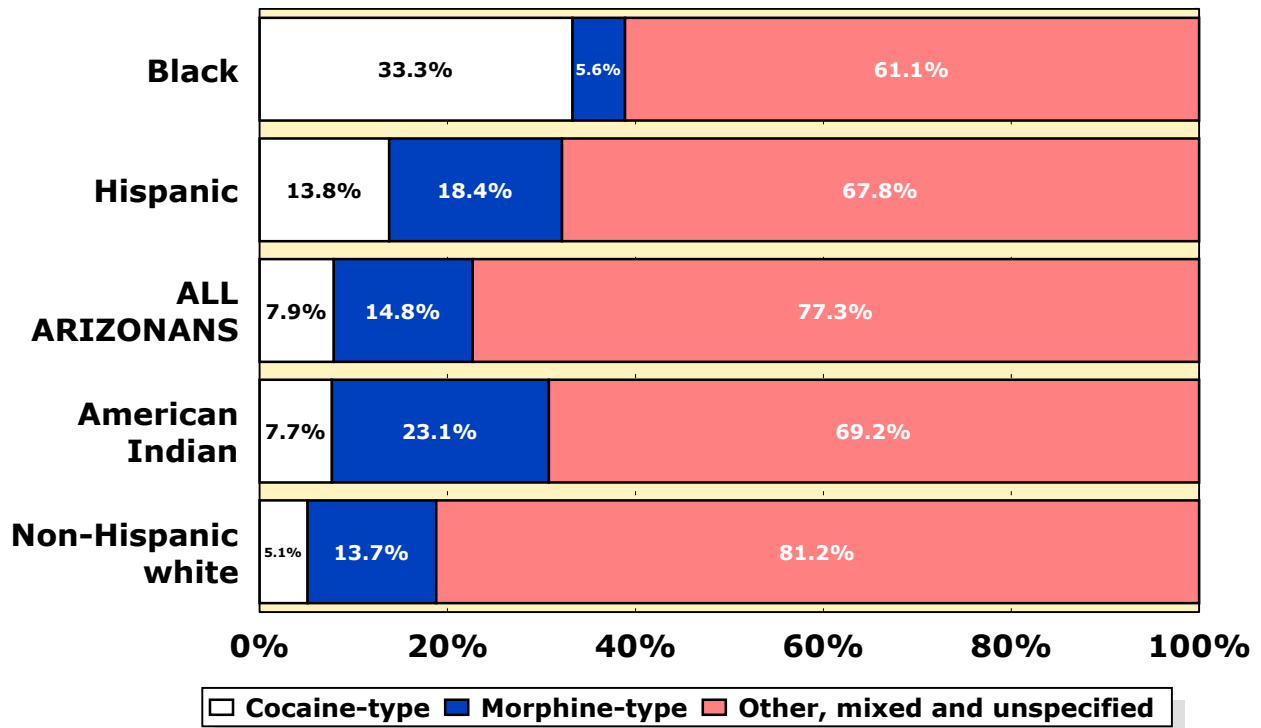
*Note: mortality rates for Asians (Asian & Pacific Islanders) do not meet standards of reliability and precision. Asians accounted for about one drug-related death per year in the period 1988-1998.*

**FIGURE 4**  
**MORTALITY RATES FOR DRUG DEPENDENCE, ABUSE AND MISUSE BY ETHNIC GROUP,**  
**ARIZONA, 1998**

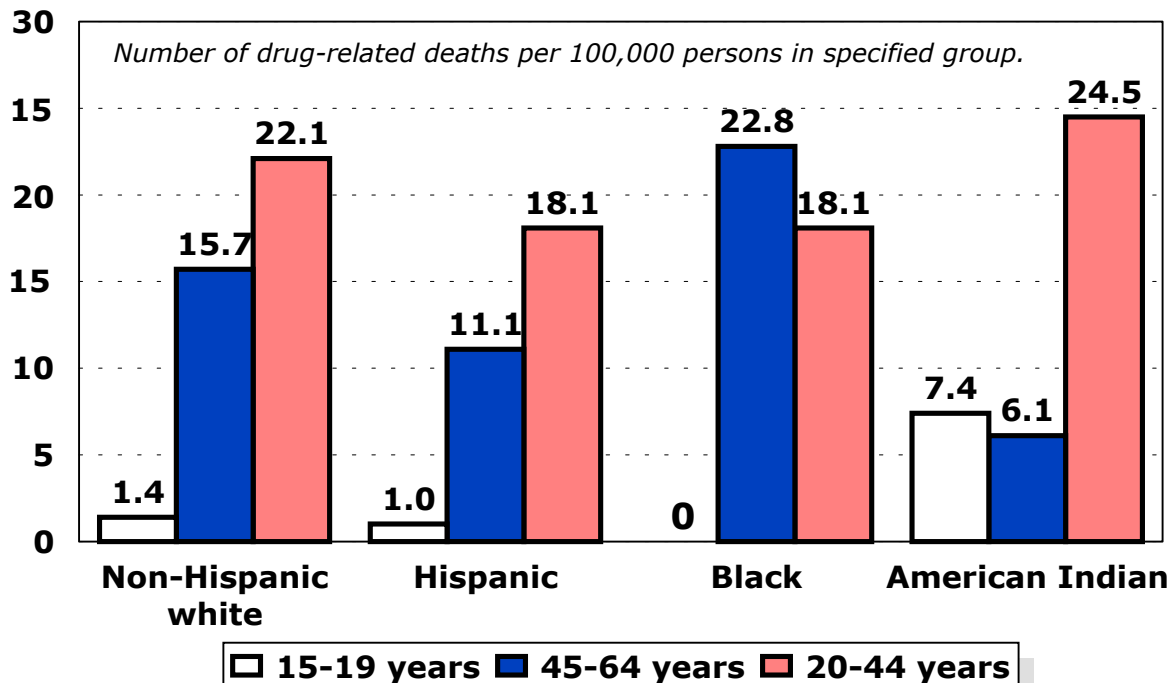




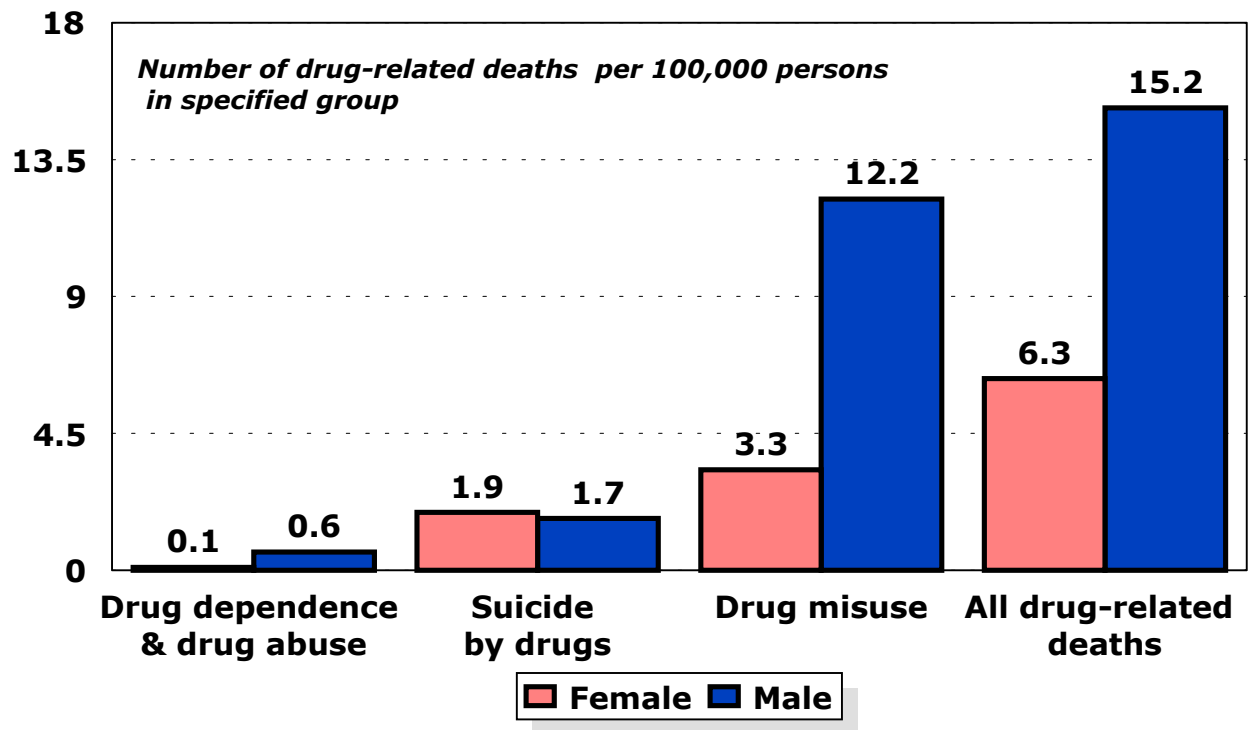
**FIGURE 5**  
**SHARE OF DRUG-RELATED DEATH BY TYPE OF DRUG AND ETHNIC GROUP,**  
**ARIZONA, 1998**



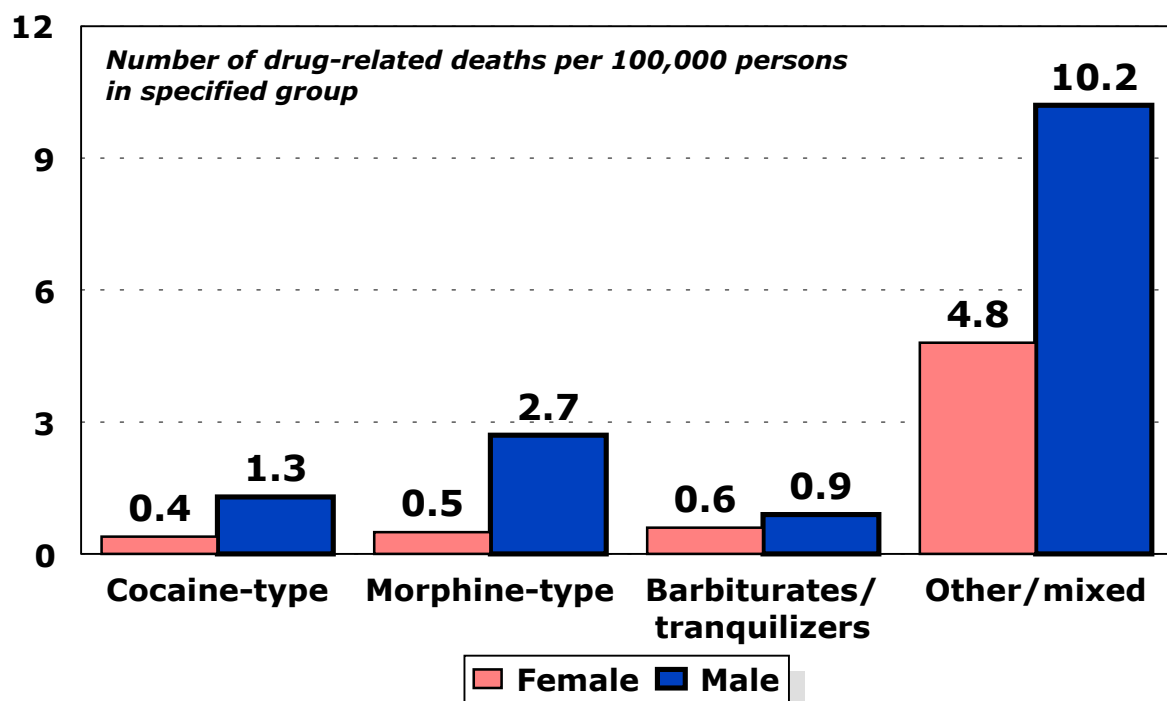
**FIGURE 6**  
**DRUG-RELATED DEATH RATES BY AGE GROUP AND ETHNICITY,**  
**ARIZONA, 1998**



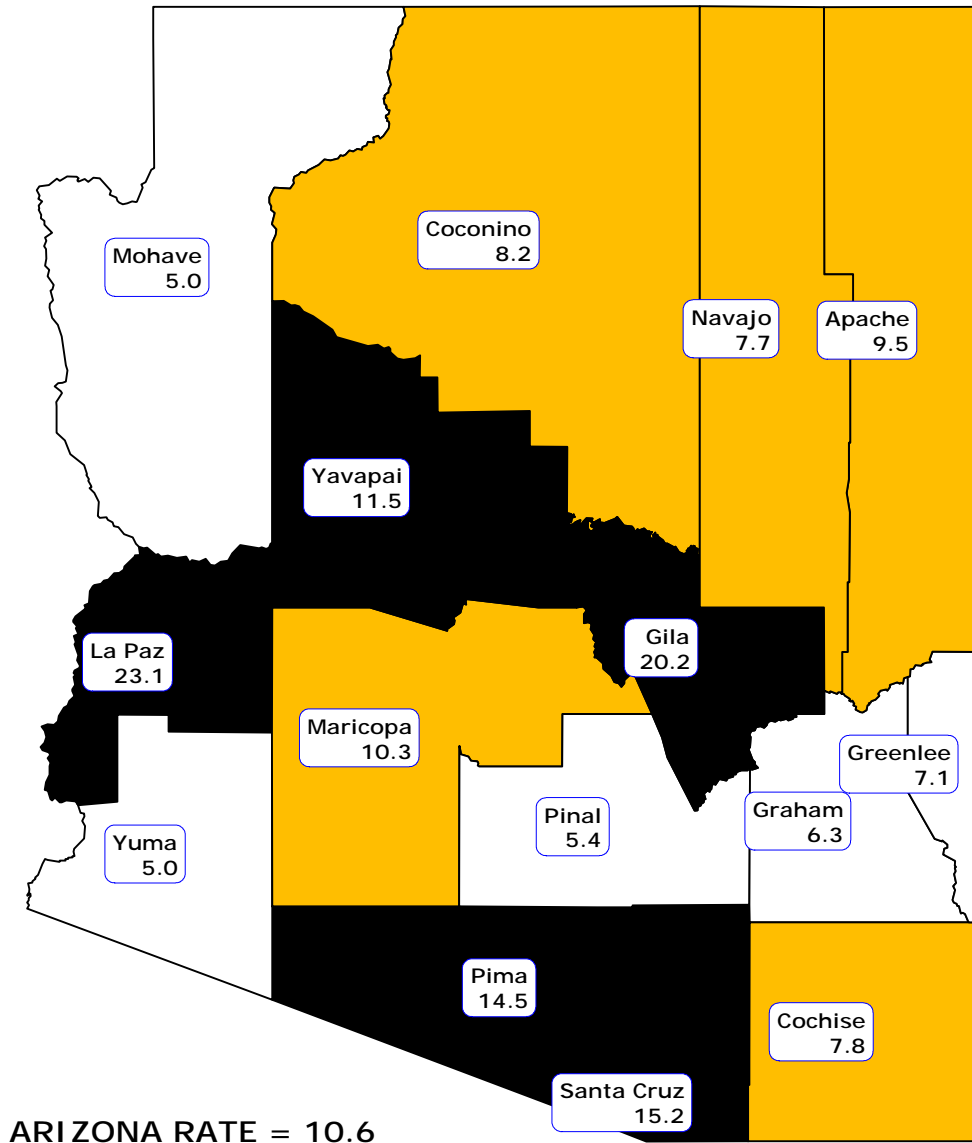
**FIGURE 7**  
**DRUG-RELATED DEATH RATES BY MORTALITY CATEGORY AND GENDER,**  
**ARIZONA, 1998**



**FIGURE 8**  
**DRUG-RELATED DEATH RATES BY TYPE OF DRUG AND GENDER,**  
**ARIZONA, 1998**



**FIGURE 9**  
**DRUG-RELATED DEATHS BY COUNTY OF RESIDENCE,**  
**ARIZONA, 1998**



*Number of deaths per 100,000 population (age-adjusted):*



5 to 7.1



7.2 to 10.3



10.4 to 23.1

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DRUG-RELATED MORTALITY, ARIZONA, 1988-1998

# DATA TABLES

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**TABLE 1**  
**NUMBER OF DRUG-RELATED DEATHS BY CIRCUMSTANCES AND CONDITIONS RESULTING IN DEATH BY YEAR,**  
**ARIZONA, 1988-1998**

Circumstances and conditions resulting in death:	Comments*	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>Drug dependence and drug abuse, total: <sup>a</sup></b>	Organic psychotic conditions and non-psychotic mental disorders associated with intake of drugs	17	20	16	25	57	42	25	42	49	10	16
<b>---Drug psychoses</b>	Syndromes due to consumption of drugs	0	0	0	0	0	0	0	0	0	0	0
<b>---Drug dependence</b>	A compulsion to take a drug on a continuous or periodic basis	15	17	15	25	53	36	22	41	46	9	12
<b>---Non-dependent abuse of drugs</b>	Maladaptive effect of a drug on which person is not dependent	2	3	1	0	4	6	3	1	3	1	4
<b>Accidental drug misuse/ unintentional poisoning by drugs <sup>b</sup></b>	Accident in the use of drugs	100	99	83	78	131	162	232	227	276	293	366
<b>Suicide by drugs</b>	Suicidal poisoning by drugs or medicaments	68	72	66	61	78	85	81	108	56	73	87
<b>Homicide by drugs</b>	Assault by drugs and medicaments	1	1	0	1	0	1	0	0	1	2	1
<b>Undetermined whether accidentally or purposely inflicted</b>	An investigation by medical or legal authority has not determined whether poisoning by drugs and medicaments is accidental, suicidal or homicidal	15	6	9	20	17	20	18	18	21	27	37
<b>Total drug-related deaths</b>		201	198	174	185	283	310	356	395	403	405	507

\* International Classification of Diseases, Adapted-Ninth Revision, Geneva: World Health Organization, 1977.

a. Includes death attributable to drug psychoses, drug dependence and non-dependent abuse of drugs.

b. Includes death attributable to accidental poisoning by drugs and medicaments and adverse effects of drugs in therapeutic use.

**TABLE 2**  
**MORTALITY RATES AND PERCENT DISTRIBUTION OF DRUG-RELATED MORTALITY**  
**BY CIRCUMSTANCES AND CONDITIONS RESULTING IN DEATH, ARIZONA, 1988-1998**

	MORTALITY RATES:										
CIRCUMSTANCES AND CONDITIONS	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Drug dependence & drug abuse <sup>a</sup>	0.5	0.5	0.4	0.7	1.5	1.8	0.6	1.0	1.1	0.2	0.3
Accidental drug misuse <sup>a</sup>	2.7	2.7	2.2	2.1	3.3	4.0	5.7	5.4	6.2	6.4	7.8
Suicide by Drugs <sup>a</sup>	1.9	1.9	1.8	1.6	2.0	2.2	2.0	2.6	1.3	1.6	1.8
Homicide by Drugs <sup>a</sup>	0.0	0.0	--	0.0	--	0.0	--	--	0.0	0.0	0.0
Undetermined <sup>a</sup>	0.4	0.2	0.2	0.5	0.4	0.5	0.4	0.4	0.5	0.6	0.8
<b>Total, all drug-related deaths<sup>b</sup></b>	<b>5.5</b>	<b>5.4</b>	<b>4.6</b>	<b>4.8</b>	<b>7.0</b>	<b>7.6</b>	<b>8.5</b>	<b>9.2</b>	<b>8.8</b>	<b>8.5</b>	<b>10.6</b>
	PERCENT DISTRIBUTION:										
CIRCUMSTANCES AND CONDITIONS	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Drug dependence & drug abuse	8.6	10.1	9.3	13.5	20.3	13.8	7.0	10.6	12.2	2.5	3.2
Accidental drug misuse	49.0	50.0	47.1	42.2	45.9	51.3	65.2	57.5	68.5	72.3	72.2
Suicide by Drugs	34.3	36.4	38.4	33.0	27.8	28.0	22.8	27.4	13.9	18.0	17.2
Homicide by Drugs	0.5	0.5	--	0.5	--	0.3	--	--	0.3	0.5	0.1
Undetermined	7.6	3.0	5.2	10.8	6.0	6.6	5.0	4.6	5.2	6.7	7.3
<b>Total, all drug-related deaths<sup>c</sup></b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

<sup>a</sup> Number of drug-related deaths per 100,000 population

<sup>b</sup> Age-adjusted mortality rates

<sup>c</sup> Total may not add due to rounding

0.0 Quantity equal or less than 0.05

--: Quantity zero



**TABLE 3**  
**NUMBER OF DRUG-RELATED DEATHS BY TYPE OF DRUG AND YEAR, ARIZONA, 1988-1998**

TYPE OF DRUG	COMMENTS <sup>a</sup>	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>Cocaine Type<sup>b</sup></b>	Cocaine leaves and derivatives	34	29	12	31	33	32	37	22	35	23	40
<b>Morphine Type</b>	Heroin, methadone, opium and combinations of morphine with any other drug	14	34	33	27	43	56	69	95	85	50	75
<b>Barbiturates, Tranquilizers and other Psychotropic Agents</b>	Barbiturates, non-barbiturates sedatives and tranquilizers, anti-depressants, hallucinogens and psycho-stimulants	43	51	40	29	35	56	52	45	28	39	37
<b>Other, Mixed and Unspecified</b>	Excludes alcohol and tobacco	110	84	89	98	172	166	198	233	255	293	355
<b>All Types</b>		201	198	174	185	283	310	356	395	403	405	507

<sup>a</sup> See International Classification of Diseases, Adapted-Ninth Revision, Geneva: World Health Organization, 1977.

<sup>b</sup> Includes cocaine type deaths attributed to unintentional drug misuse and also those classified in terms of drug dependence and drug abuse.

**TABLE 4**  
**MORTALITY RATES<sup>a</sup> AND PERCENT DISTRIBUTION OF DRUG-RELATED**  
**DEATHS BY TYPE OF DRUG AND YEAR, ARIZONA, 1988-1998**

	<b>MORTALITY RATES:</b>										
<b>TYPE OF DRUG</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
Cocaine Type <sup>a</sup>	0.9	0.8	0.3	0.8	0.9	0.8	0.9	0.5	0.8	0.5	0.8
Morphine Type <sup>a</sup>	0.4	0.9	0.9	0.7	1.1	1.4	1.7	2.3	1.9	1.1	1.6
Barbiturates, Tranquilizers and Other Psychotropic Agents <sup>a</sup>	1.3	1.4	1.1	0.8	1.0	1.5	1.3	1.1	0.6	0.8	0.8
Other, Mixed and Unspecified <sup>a</sup>	2.9	2.2	2.3	2.6	4.3	4.0	4.9	5.6	5.7	6.4	7.5
<b>All Types<sup>b</sup></b>	<b>5.5</b>	<b>5.4</b>	<b>4.6</b>	<b>4.8</b>	<b>7.0</b>	<b>7.6</b>	<b>8.5</b>	<b>9.2</b>	<b>8.8</b>	<b>8.5</b>	<b>10.6</b>
	<b>PERCENT DISTRIBUTION:</b>										
<b>TYPE OF DRUG</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
Cocaine Type	17.2	14.6	7.0	16.8	11.7	10.5	10.4	5.6	8.7	5.7	7.9
Morphine Type	7.1	17.2	19.2	14.6	15.3	18.4	19.4	24.0	21.1	12.3	14.8
Barbiturates, Tranquilizers and Other Psychotropic Agents	23.7	26.3	24.4	16.2	14.2	19.1	14.6	11.4	6.9	9.6	7.3
Other, Mixed and Unspecified	52.0	41.9	49.4	52.4	58.7	52.0	55.6	59.0	63.3	72.4	70.0
<b>All Types<sup>c</sup></b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

<sup>a</sup> Number of drug-related deaths per 100,000 population

<sup>b</sup> Age-adjusted mortality rates

<sup>c</sup> Total may not add due to rounding

**TABLE 5**  
**DRUG-RELATED MORTALITY BY CIRCUMSTANCES AND CONDITIONS RESULTING**  
**IN DEATH, TYPE OF DRUG AND YEAR, ARIZONA, 1988-1998**

		Year										
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	Cocaine type	34	29	12	31	33	32	37	22	35	23	40
	Morphine type	14	34	33	27	43	56	69	95	85	50	75
	Barbiturates, tranquilizers and other psychotropic agents	43	51	40	29	35	56	52	45	28	39	37
	Other, mixed and unspecified	110	84	89	98	172	166	198	233	255	293	355
	TOTAL	201	198	174	185	283	310	356	395	403	405	507
Drug dependence and drug abuse	Cocaine type	0	0	1	1	6	4	0	0	0	0	1
	Morphine type	3	3	4	11	19	7	3	1	3	1	3
	Barbiturates, tranquilizers and other psychotropic agents	0	0	0	0	2	2	0	0	1	1	1
	Other, mixed and unspecified	14	17	11	13	30	29	22	41	45	8	11
	TOTAL	17	20	16	25	57	42	25	42	49	10	16
Accidental drug misuse	Cocaine type	34	29	11	30	27	28	37	22	35	23	39
	Morphine type	11	31	29	16	24	49	66	94	82	49	72
	Barbiturates, tranquilizers and other psychotropic agents	10	10	7	6	12	22	32	20	13	19	12
	Other, mixed and unspecified	45	29	36	26	68	63	97	91	146	202	243
	TOTAL	100	99	83	78	131	162	232	227	276	293	366
Suicide by drugs	Barbiturates, tranquilizers and other psychotropic agents	29	40	30	17	19	28	17	22	13	15	15
	Other, mixed and unspecified	39	32	36	44	59	57	64	86	43	58	72
	TOTAL	68	72	66	61	78	85	81	108	56	73	87
Homicide by drugs	Other, mixed and unspecified	1	1	0	1	0	1	0	0	1	2	1
	TOTAL	1	1	0	1	0	1	0	0	1	2	1
Undetermined	Barbiturates, tranquilizers and other psychotropic agents	4	1	3	6	2	4	3	3	1	4	9
	Other, mixed and unspecified	11	5	6	14	15	16	15	15	20	23	28
	TOTAL	15	6	9	20	17	20	18	18	21	27	37

**TABLE 6**  
**DRUG-RELATED MORTALITY BY CIRCUMSTANCES AND CONDITIONS RESULTING**  
**IN DEATH, ETHNIC GROUP AND YEAR, ARIZONA, 1988-1998**

		Year										
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	Drug dependence and drug abuse	17	20	16	25	57	42	25	42	49	10	16
	Accidental drug misuse	100	99	83	78	131	162	232	227	276	293	366
	Suicide by drugs	68	72	66	61	78	85	81	108	56	73	87
	Homicide by drugs	1	1	0	1	0	1	0	0	1	2	1
	Undetermined	15	6	9	20	17	20	18	18	21	27	37
	TOTAL	201	198	174	185	283	310	356	395	403	405	507
Non-Hispanic white	Drug dependence and drug abuse	12	10	12	19	37	31	13	27	38	4	10
	Accidental drug misuse	67	61	58	52	90	122	152	162	185	190	252
	Suicide by drugs	64	64	54	49	64	76	71	101	47	68	80
	Homicide by drugs	0	1	0	1	0	1	0	0	1	2	1
	Undetermined	13	6	8	16	13	13	14	15	14	24	29
	TOTAL	156	142	132	137	204	243	250	305	285	288	372
Hispanic	Drug dependence and drug abuse	3	8	4	5	12	7	10	9	7	2	3
	Accidental drug misuse	25	31	17	17	27	28	42	47	61	61	75
	Suicide by drugs	2	5	6	8	6	5	2	4	5	0	4
	Homicide by drugs	1	0	0	0	0	0	0	0	0	0	0
	Undetermined	2	0	1	3	2	2	1	2	3	3	5
	TOTAL	33	44	28	33	47	42	55	62	76	66	87
Black	Drug dependence and drug abuse	2	0	0	0	3	2	1	3	2	1	1
	Accidental drug misuse	7	4	3	6	8	8	15	9	17	19	17
	Suicide by drugs	1	3	2	3	2	0	3	2	0	3	0
	Undetermined	0	0	0	0	0	2	0	0	1	0	0
	TOTAL	10	7	5	9	13	12	19	14	20	23	18
American Indian	Drug dependence and drug abuse	0	2	0	1	3	2	1	2	2	3	2
	Accidental drug misuse	1	3	5	3	6	4	23	8	10	17	19
	Suicide by drugs	0	0	4	1	5	4	2	1	4	2	2
	Undetermined	0	0	0	1	2	3	2	1	3	0	3
	TOTAL	1	5	9	6	16	13	28	12	19	22	26
Asian	Drug dependence and drug abuse	0	0	0	0	2	0	0	1	0	0	0
	Accidental drug misuse	0	0	0	0	0	0	0	0	0	2	1
	Suicide by drugs	1	0	0	0	0	0	3	0	0	0	1
	Undetermined	0	0	0	0	0	0	1	0	0	0	0
	TOTAL	1	0	0	0	2	0	4	1	0	2	2
Unknown	Accidental drug misuse	0	0	0	0	0	0	0	1	3	4	2
	Suicide by drugs	0	0	0	0	1	0	0	0	0	0	0
	TOTAL	0	0	0	0	1	0	0	1	3	4	2

**TABLE 7**  
**DRUG-RELATED MORTALITY BY TYPE OF DRUG AND YEAR FOR EACH ETHNIC GROUP,**  
**ARIZONA, 1988-1998**

		Year										
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	Cocaine type	34	29	12	31	33	32	37	22	35	23	40
	Morphine type	14	34	33	27	43	56	69	95	85	50	75
	Barbiturates, tranquilizers and other psychotropic agents	43	51	40	29	35	56	52	45	28	39	37
	Other, mixed and unspecified	110	84	89	98	172	166	198	233	255	293	355
	TOTAL	201	198	174	185	283	310	356	395	403	405	507
Non-Hispanic white	Cocaine type	22	19	4	23	15	20	14	15	17	11	19
	Morphine type	12	18	21	17	30	39	46	64	57	34	51
	Barbiturates, tranquilizers and other psychotropic agents	40	43	34	23	27	51	47	38	27	35	29
	Other, mixed and unspecified	82	62	73	74	132	133	143	188	184	208	273
	TOTAL	156	142	132	137	204	243	250	305	285	288	372
Hispanic	Cocaine type	8	9	3	4	10	5	10	3	9	5	12
	Morphine type	2	13	12	8	8	14	14	26	22	11	16
	Barbiturates, tranquilizers and other psychotropic agents	2	4	3	5	6	1	1	3	0	1	4
	Other, mixed and unspecified	21	18	10	16	23	22	30	30	45	49	55
	TOTAL	33	44	28	33	47	42	55	62	76	66	87
Black	Cocaine type	3	1	2	3	6	7	6	3	9	4	6
	Morphine type	0	1	0	1	2	1	2	2	1	1	1
	Barbiturates, tranquilizers and other psychotropic agents	1	4	1	1	1	2	1	2	0	1	0
	Other, mixed and unspecified	6	1	2	4	4	2	10	7	10	17	11
	TOTAL	10	7	5	9	13	12	19	14	20	23	18
American Indian	Cocaine type	1	0	3	1	1	0	7	1	0	3	2
	Morphine type	0	2	0	1	2	2	7	2	3	3	6
	Barbiturates, tranquilizers and other psychotropic agents	0	0	2	0	1	2	2	2	1	2	3
	Other, mixed and unspecified	0	3	4	4	12	9	12	7	15	14	15
	TOTAL	1	5	9	6	16	13	28	12	19	22	26
Asian	Cocaine type	0	0	0	0	1	0	0	0	0	0	0
	Morphine type	0	0	0	0	1	0	0	0	0	1	1
	Barbiturates, tranquilizers and other psychotropic agents	0	0	0	0	0	0	1	0	0	0	1
	Other, mixed and unspecified	1	0	0	0	0	0	3	1	0	1	0
	TOTAL	1	0	0	0	2	0	4	1	0	2	2
Unknown	Cocaine type	0	0	0	0	0	0	0	0	0	0	1
	Morphine type	0	0	0	0	0	0	0	1	2	0	0
	Other, mixed and unspecified	0	0	0	0	1	0	0	0	1	4	1
	TOTAL	0	0	0	0	1	0	0	1	3	4	2

**TABLE 8**  
**DRUG-RELATED DEATH RATES BY MORTALITY CATEGORY AND ETHNIC GROUP,**  
**ARIZONA, 1998**

	Mortality Rates <sup>a</sup> by Ethnic Group:				
Mortality Category:	White <sup>b</sup>	Hispanic	Black	American Indian	All Ethnic Groups
Total drug-related deaths <sup>c</sup>	11.9	8.8	10.9	10.2	<b>10.7</b>
--due to drug dependence and drug abuse <sup>c</sup>	0.3	0.3	0.6	0.8	<b>0.3</b>
--due to accidental drug misuse	8.0	7.6	10.3	7.5	<b>7.8</b>
--suicide by drugs	2.6	0.4	---	0.8	<b>1.8</b>
Cocaine-related deaths <sup>d</sup>	0.6	1.2	3.6	0.8	<b>0.8</b>
Morphine-related deaths <sup>d</sup>	1.6	1.6	0.6	2.4	<b>1.6</b>
Deaths related to barbiturates, tranquilizers and other psychotropic agents <sup>d</sup>	0.9	0.4	---	1.2	<b>0.8</b>
Deaths related to other, mixed and unspecified drugs	8.7	5.6	6.7	5.9	<b>7.5</b>
Drug-related deaths among persons 15-19 years old <sup>e</sup>	1.4	1.0	---	7.4	<b>2.1</b>
Drug-related deaths among persons 20-44 years old <sup>e</sup>	22.1	18.1	18.1	24.5	<b>19.7</b>
Drug-related deaths among persons 45-64 years old <sup>e</sup>	15.7	11.1	22.8	6.1	<b>14.8</b>

<sup>a</sup> Total number of drug-related deaths per 100,000 persons in specified group in 1998.

<sup>b</sup> Non-Hispanic.

<sup>c</sup> Number of drug-related deaths by ethnic group is given in Table 6.

<sup>d</sup> Number of drug-related deaths by type of drug and ethnicity is given in Table 7.

<sup>e</sup> Number of drug-related deaths by age group and ethnicity is give in Table 9.

**TABLE 9**  
**DRUG-RELATED MORTALITY BY ETHNIC GROUP AND YEAR FOR EACH AGE GROUP,**  
**ARIZONA, 1988-1998**

		Year										
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>Total</b>	<b>&lt;1</b>	0	1	0	0	0	0	1	0	0	0	0
	<b>1-14</b>	2	0	3	0	0	2	2	2	0	5	1
	<b>15-19</b>	6	7	8	7	9	7	4	7	3	6	7
	<b>20-44</b>	149	143	115	130	202	215	248	282	295	260	343
	<b>45-64</b>	25	35	33	34	45	67	75	80	81	103	138
	<b>65+</b>	19	12	15	14	26	18	26	23	20	27	17
	<b>UNKNOWN</b>	0	0	0	0	1	1	0	1	4	4	1
	<b>TOTAL</b>	201	198	174	185	283	310	356	395	403	405	507
<b>Non-Hispanic white</b>	<b>&lt;1</b>	0	0	0	0	0	0	1	0	0	0	0
	<b>1-14</b>	1	0	1	0	0	2	1	1	0	2	0
	<b>15-19</b>	4	4	6	5	6	4	2	5	3	1	3
	<b>20-44</b>	110	98	84	93	135	163	171	209	202	177	238
	<b>45-64</b>	22	28	27	27	38	57	52	68	60	83	115
	<b>65+</b>	19	12	14	12	25	16	23	21	19	24	15
	<b>UNKNOWN</b>	0	0	0	0	0	1	0	1	1	1	1
	<b>TOTAL</b>	156	142	132	137	204	243	250	305	285	288	372
<b>Hispanic</b>	<b>1-14</b>	0	0	0	0	0	0	0	0	0	2	1
	<b>15-19</b>	2	1	1	2	2	3	2	1	0	5	1
	<b>20-44</b>	29	38	22	25	41	31	42	52	65	47	68
	<b>45-64</b>	2	5	5	5	4	6	9	7	11	11	15
	<b>65+</b>	0	0	0	1	0	2	2	2	0	1	2
	<b>TOTAL</b>	33	44	28	33	47	42	55	62	76	66	87
<b>Black</b>	<b>&lt;1</b>	0	1	0	0	0	0	0	0	0	0	0
	<b>1-14</b>	1	0	0	0	0	0	0	1	0	1	0
	<b>15-19</b>	0	2	0	0	0	0	0	0	0	0	0
	<b>20-44</b>	8	4	5	8	11	12	10	9	16	17	12
	<b>45-64</b>	1	0	0	0	2	0	9	4	4	4	6
	<b>65+</b>	0	0	0	1	0	0	0	0	0	1	0
	<b>TOTAL</b>	10	7	5	9	13	12	19	14	20	23	18
<b>American Indian</b>	<b>1-14</b>	0	0	2	0	0	0	1	0	0	0	0
	<b>15-19</b>	0	0	1	0	1	0	0	1	0	0	2
	<b>20-44</b>	1	3	4	4	13	9	23	10	12	18	22
	<b>45-64</b>	0	2	1	2	1	4	3	1	6	3	2
	<b>65+</b>	0	0	1	0	1	0	1	0	1	1	0
	<b>TOTAL</b>	1	5	9	6	16	13	28	12	19	22	26
<b>Asian</b>	<b>15-19</b>	0	0	0	0	0	0	0	0	0	0	1
	<b>20-44</b>	1	0	0	0	2	0	2	1	0	1	1
	<b>45-64</b>	0	0	0	0	0	0	2	0	0	1	0
	<b>TOTAL</b>	1	0	0	0	2	0	4	1	0	2	2
<b>Unknown</b>	<b>20-44</b>	0	0	0	0	0	0	0	1	0	0	2
	<b>45-64</b>	0	0	0	0	0	0	0	0	0	1	0
	<b>UNKNOWN</b>	0	0	0	0	1	0	0	0	3	3	0
	<b>TOTAL</b>	0	0	0	0	1	0	0	1	3	4	2

**TABLE 10**  
**DRUG-RELATED MORTALITY BY CIRCUMSTANCES AND CONDITIONS RESULTING**  
**IN DEATH, AGE GROUP AND YEAR, ARIZONA, 1988-1998**

		Year										
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	Drug dependence and drug abuse	17	20	16	25	57	42	25	42	49	10	16
	Accidental drug misuse	100	99	83	78	131	162	232	227	276	293	366
	Suicide by drugs	68	72	66	61	78	85	81	108	56	73	87
	Homicide by drugs	1	1	0	1	0	1	0	0	1	2	1
	Undetermined	15	6	9	20	17	20	18	18	21	27	37
	TOTAL	201	198	174	185	283	310	356	395	403	405	507
<1	Drug dependence and drug abuse	0	0	0	0	0	0	1	0	0	0	0
	Accidental drug misuse	0	1	0	0	0	0	0	0	0	0	0
	TOTAL	0	1	0	0	0	0	1	0	0	0	0
1-14	Accidental drug misuse	2	0	1	0	0	2	0	1	0	2	0
	Suicide by drugs	0	0	2	0	0	0	2	1	0	0	1
	Homicide by drugs	0	0	0	0	0	0	0	0	0	2	0
	Undetermined	0	0	0	0	0	0	0	0	0	1	0
	TOTAL	2	0	3	0	0	2	2	2	0	5	1
15-19	Drug dependence and drug abuse	0	0	2	0	1	0	0	0	0	0	1
	Accidental drug misuse	3	3	2	3	3	1	3	5	3	6	5
	Suicide by drugs	3	4	4	4	4	5	1	1	0	0	1
	Undetermined	0	0	0	0	1	1	0	1	0	0	0
	TOTAL	6	7	8	7	9	7	4	7	3	6	7
20-44	Drug dependence and drug abuse	15	18	12	25	47	35	21	32	43	9	13
	Accidental drug misuse	82	86	61	65	100	120	179	170	205	202	259
	Suicide by drugs	42	34	35	31	42	44	39	67	31	34	50
	Homicide by drugs	1	0	0	0	0	1	0	0	1	0	0
	Undetermined	9	5	7	9	13	15	9	13	15	15	21
	TOTAL	149	143	115	130	202	215	248	282	295	260	343
45-64	Drug dependence and drug abuse	1	1	2	0	8	7	3	9	6	1	1
	Accidental drug misuse	6	8	14	8	17	32	39	41	56	72	94
	Suicide by drugs	14	24	15	16	19	26	25	26	13	23	28
	Homicide by drugs	0	1	0	0	0	0	0	0	0	0	1
	Undetermined	4	1	2	10	1	2	8	4	6	7	14
	TOTAL	25	35	33	34	45	67	75	80	81	103	138
65+	Drug dependence and drug abuse	1	1	0	0	1	0	0	0	0	0	1
	Accidental drug misuse	7	1	5	2	11	6	11	10	8	7	7
	Suicide by drugs	9	10	10	10	12	10	14	13	12	16	7
	Homicide by drugs	0	0	0	1	0	0	0	0	0	0	0
	Undetermined	2	0	0	1	2	2	1	0	0	4	2
	TOTAL	19	12	15	14	26	18	26	23	20	27	17
UNKNOWN	Drug dependence and drug abuse	0	0	0	0	0	0	0	1	0	0	0
	Accidental drug misuse	0	0	0	0	0	1	0	0	4	4	1
	Suicide by drugs	0	0	0	0	1	0	0	0	0	0	0
	TOTAL	0	0	0	0	1	1	0	1	4	4	1



**TABLE 11**  
**DRUG-RELATED MORTALITY BY TYPE OF DRUG AND AGE GROUP BY YEAR,**  
**ARIZONA, 1988-1998**

		Year										
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	Cocaine type	34	29	12	31	33	32	37	22	35	23	40
	Morphine type	14	34	33	27	43	56	69	95	85	50	75
	Barbiturates, tranquilizers and other psychotropic agents	43	51	40	29	35	56	52	45	28	39	37
	Other, mixed and unspecified	110	84	89	98	172	166	198	233	255	293	355
	TOTAL	201	198	174	185	283	310	356	395	403	405	507
<1	Cocaine type	0	1	0	0	0	0	0	0	0	0	0
	Morphine type	0	0	0	0	0	0	1	0	0	0	0
	TOTAL	0	1	0	0	0	0	1	0	0	0	0
1-14	Cocaine type	0	0	1	0	0	1	0	0	0	0	0
	Morphine type	0	0	0	0	0	1	0	1	0	0	0
	Barbiturates, tranquilizers and other psychotropic agents	0	0	1	0	0	0	0	1	0	0	1
	Other, mixed and unspecified	2	0	1	0	0	0	2	0	0	5	0
	TOTAL	2	0	3	0	0	2	2	2	0	5	1
15-19	Cocaine type	1	1	1	0	3	1	0	0	1	0	1
	Morphine type	0	0	0	0	0	0	1	1	1	0	1
	Barbiturates, tranquilizers and other psychotropic agents	3	3	4	4	1	1	3	2	0	0	2
	Other, mixed and unspecified	2	3	3	3	5	5	0	4	1	6	3
	TOTAL	6	7	8	7	9	7	4	7	3	6	7
20-44	Cocaine type	31	26	10	31	27	25	30	18	29	20	31
	Morphine type	13	33	26	26	38	44	55	79	63	35	54
	Barbiturates, tranquilizers and other psychotropic agents	26	30	20	14	22	40	34	33	17	27	22
	Other, mixed and unspecified	79	54	59	59	115	106	129	152	186	178	236
	TOTAL	149	143	115	130	202	215	248	282	295	260	343
45-64	Cocaine type	2	1	0	0	3	5	7	4	5	2	8
	Morphine type	1	1	6	1	4	10	10	13	18	14	19
	Barbiturates, tranquilizers and other psychotropic agents	10	15	8	8	7	12	12	7	7	6	9
	Other, mixed and unspecified	12	18	19	25	31	40	46	56	51	81	102
	TOTAL	25	35	33	34	45	67	75	80	81	103	138
65+	Cocaine type	0	0	0	0	0	0	0	0	0	1	0
	Morphine type	0	0	1	0	1	0	2	1	1	0	1
	Barbiturates, tranquilizers and other psychotropic agents	4	3	7	3	5	3	3	2	4	6	3
	Other, mixed and unspecified	15	9	7	11	20	15	21	20	15	20	13
	TOTAL	19	12	15	14	26	18	26	23	20	27	17
UNKNOWN	Morphine type	0	0	0	0	0	1	0	0	2	1	0
	Other, mixed and unspecified	0	0	0	0	1	0	0	1	2	3	1
	TOTAL	0	0	0	0	1	1	0	1	4	4	1

**TABLE 12**  
**DRUG-RELATED MORTALITY IN URBAN AND RURAL AREAS BY CIRCUMSTANCES AND**  
**CONDITIONS RESULTING IN DEATH AND YEAR, ARIZONA, 1988-1998**

		Year										
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	Drug dependence and drug abuse	17	20	16	25	57	42	25	42	49	10	16
	Accidental drug misuse	100	99	83	78	131	162	232	227	276	293	366
	Suicide by drugs	68	72	66	61	78	85	81	108	56	73	87
	Homicide by drugs	1	1	0	1	0	1	0	0	1	2	1
	Undetermined	15	6	9	20	17	20	18	18	21	27	37
	TOTAL	201	198	174	185	283	310	356	395	403	405	507
Urban	Drug dependence and drug abuse	15	19	15	25	52	37	22	35	41	8	14
	Accidental drug misuse	86	87	74	74	104	141	203	200	239	261	318
	Suicide by drugs	62	59	55	57	55	68	63	91	48	61	66
	Homicide by drugs	1	1	0	1	0	1	0	0	1	2	1
	Undetermined	12	5	7	16	12	10	14	15	9	17	21
	TOTAL	176	171	151	173	223	257	302	341	338	349	420
Rural	Drug dependence and drug abuse	2	1	1	0	5	4	2	3	6	0	1
	Accidental drug misuse	14	12	9	4	25	19	27	23	31	24	41
	Suicide by drugs	6	13	11	4	21	13	18	12	6	8	19
	Undetermined	3	1	2	4	4	5	3	1	7	7	12
	TOTAL	25	27	23	12	55	41	50	39	50	39	73

**TABLE 13**  
**DRUG-RELATED MORTALITY IN URBAN AND RURAL AREAS BY TYPE OF DRUG AND YEAR,**  
**ARIZONA, 1988-1998**

		Year										
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	Cocaine type	34	29	12	31	33	32	37	22	35	23	40
	Morphine type	14	34	33	27	43	56	69	95	85	50	75
	Barbiturates, tranquilizers and other psychotropic agents	43	51	40	29	35	56	52	45	28	39	37
	Other, mixed and unspecified	110	84	89	98	172	166	198	233	255	293	355
	TOTAL	201	198	174	185	283	310	356	395	403	405	507
Urban	Cocaine type	31	25	12	29	28	27	29	21	29	20	32
	Morphine type	13	31	32	27	41	50	65	87	79	40	61
	Barbiturates, tranquilizers and other psychotropic agents	39	44	31	28	24	50	40	36	28	28	29
	Other, mixed and unspecified	93	71	76	89	130	130	168	197	202	261	298
	TOTAL	176	171	151	173	223	257	302	341	338	349	420
Rural	Cocaine type	3	4	0	2	5	4	7	1	6	2	7
	Morphine type	1	3	1	0	0	6	3	6	5	4	9
	Barbiturates, tranquilizers and other psychotropic agents	4	7	9	1	10	3	12	7	0	7	8
	Other, mixed and unspecified	17	13	13	9	40	28	28	25	39	26	49
	TOTAL	25	27	23	12	55	41	50	39	50	39	73

**TABLE 14**  
**DRUG-RELATED MORTALITY BY CIRCUMSTANCES AND CONDITIONS RESULTING IN DEATH,**  
**GENDER AND YEAR, ARIZONA, 1988-1998**

		Year										
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	Cocaine type	34	29	12	31	33	32	37	22	35	23	40
	Morphine type	14	34	33	27	43	56	69	95	85	50	75
	Barbiturates, tranquilizers and other psychotropic agents	43	51	40	29	35	56	52	45	28	39	37
	Other, mixed and unspecified	110	84	89	98	172	166	198	233	255	293	355
	TOTAL	201	198	174	185	283	310	356	395	403	405	507
Male	Cocaine type	29	22	9	26	26	27	28	19	26	20	31
	Morphine type	13	31	29	23	38	49	58	83	78	43	64
	Barbiturates, tranquilizers and other psychotropic agents	23	26	25	13	18	33	31	30	19	31	22
	Other, mixed and unspecified	58	57	62	57	123	109	129	144	176	205	241
	TOTAL	123	136	125	119	205	218	246	276	299	299	358
Female	Cocaine type	5	7	3	5	7	5	9	3	9	3	9
	Morphine type	1	3	4	4	5	7	11	12	7	7	11
	Barbiturates, tranquilizers and other psychotropic agents	20	25	15	16	17	23	21	15	9	8	15
	Other, mixed and unspecified	52	27	27	41	49	57	69	89	79	88	114
	TOTAL	78	62	49	66	78	92	110	119	104	106	149

**TABLE 15**  
**DRUG-RELATED MORTALITY BY TYPE OF DRUG, GENDER AND YEAR,**  
**ARIZONA, 1988-1998**

		Year										
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	Drug dependence and drug abuse	17	20	16	25	57	42	25	42	49	10	16
	Accidental drug misuse	100	99	83	78	131	162	232	227	276	293	366
	Suicide by drugs	68	72	66	61	78	85	81	108	56	73	87
	Homicide by drugs	1	1	0	1	0	1	0	0	1	2	1
	Undetermined	15	6	9	20	17	20	18	18	21	27	37
	TOTAL	201	198	174	185	283	310	356	395	403	405	507
Male	Drug dependence and drug abuse	11	12	14	21	50	32	22	36	36	8	13
	Accidental drug misuse	76	79	66	61	101	128	173	184	224	239	287
	Suicide by drugs	31	41	39	26	44	42	43	46	26	35	41
	Homicide by drugs	1	1	0	0	0	0	0	0	1	0	0
	Undetermined	4	3	6	11	10	16	8	10	12	17	17
	TOTAL	123	136	125	119	205	218	246	276	299	299	358
Female	Drug dependence and drug abuse	6	8	2	4	7	10	3	6	13	2	3
	Accidental drug misuse	24	20	17	17	30	34	59	43	52	54	79
	Suicide by drugs	37	31	27	35	34	43	38	62	30	38	46
	Homicide by drugs	0	0	0	1	0	1	0	0	0	2	1
	Undetermined	11	3	3	9	7	4	10	8	9	10	20
	TOTAL	78	62	49	66	78	92	110	119	104	106	149

**TABLE 16**  
**DRUG-RELATED MORTALITY BY CIRCUMSTANCES AND CONDITIONS RESULTING**  
**IN DEATH, MARITAL STATUS AND YEAR, ARIZONA, 1988-1998**

		Year										
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	Drug dependence and drug abuse	17	20	16	25	57	42	25	42	49	10	16
	Accidental drug misuse	100	99	83	78	131	162	232	227	276	293	366
	Suicide by drugs	68	72	66	61	78	85	81	108	56	73	87
	Homicide by drugs	1	1	0	1	0	1	0	0	1	2	1
	Undetermined	15	6	9	20	17	20	18	18	21	27	37
	TOTAL	201	198	174	185	283	310	356	395	403	405	507
Married	Drug dependence and drug abuse	5	8	6	5	14	12	4	7	13	1	5
	Accidental drug misuse	30	28	20	21	33	42	54	73	72	68	77
	Suicide by drugs	22	31	20	18	21	26	22	36	16	22	29
	Homicide by drugs	1	1	0	1	0	0	0	0	0	0	1
	Undetermined	7	4	3	5	5	4	7	2	8	6	14
	TOTAL	65	72	49	50	73	84	87	118	109	97	126
Single	Drug dependence and drug abuse	11	12	10	20	41	28	19	31	33	9	10
	Accidental drug misuse	70	69	60	56	94	117	168	147	177	209	270
	Suicide by drugs	45	40	46	43	56	58	57	70	40	51	56
	Homicide by drugs	0	0	0	0	0	1	0	0	1	2	0
	Undetermined	8	2	6	15	12	16	11	15	13	21	23
	TOTAL	134	123	122	134	203	220	255	263	264	292	359
Unknown	Drug dependence and drug abuse	1	0	0	0	2	2	2	4	3	0	1
	Accidental drug misuse	0	2	3	1	4	3	10	7	27	16	19
	Suicide by drugs	1	1	0	0	1	1	2	2	0	0	2
	Undetermined	0	0	0	0	0	0	0	1	0	0	0
	TOTAL	2	3	3	1	7	6	14	14	30	16	22

**TABLE 17**  
**DRUG-RELATED MORTALITY BY TYPE OF DRUG, MARITAL STATUS AND YEAR, ARIZONA, 1988-1998**

		Year										
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	Cocaine type	34	29	12	31	33	32	37	22	35	23	40
	Morphine type	14	34	33	27	43	56	69	95	85	50	75
	Barbiturates, tranquilizers and other psychotropic agents	43	51	40	29	35	56	52	45	28	39	37
	Other, mixed and unspecified	110	84	89	98	172	166	198	233	255	293	355
	TOTAL	201	198	174	185	283	310	356	395	403	405	507
Married	Cocaine type	8	7	2	10	9	11	9	8	8	8	8
	Morphine type	3	12	8	5	6	9	12	26	24	13	11
	Barbiturates, tranquilizers and other psychotropic agents	14	19	10	8	9	12	13	14	4	8	10
	Other, mixed and unspecified	40	34	29	27	49	52	53	70	73	68	97
	TOTAL	65	72	49	50	73	84	87	118	109	97	126
Single	Cocaine type	26	22	9	21	23	20	27	14	26	15	29
	Morphine type	11	20	24	21	34	46	54	66	48	32	64
	Barbiturates, tranquilizers and other psychotropic agents	29	32	30	21	25	43	36	30	24	31	26
	Other, mixed and unspecified	68	49	59	71	121	111	138	153	166	214	240
	TOTAL	134	123	122	134	203	220	255	263	264	292	359
Unknown	Cocaine type	0	0	1	0	1	1	1	0	1	0	3
	Morphine type	0	2	1	1	3	1	3	3	13	5	0
	Barbiturates, tranquilizers and other psychotropic agents	0	0	0	0	1	1	3	1	0	0	1
	Other, mixed and unspecified	2	1	1	0	2	3	7	10	16	11	18
	TOTAL	2	3	3	1	7	6	14	14	30	16	22

**TABLE 18**  
**DRUG-RELATED MORTALITY BY COUNTY OF RESIDENCE AND YEAR, ARIZONA, 1988-1998**

	Year										
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>Apache</b>	1	1	2	1	2	1	6	3	1	0	5
<b>Cochise</b>	5	3	5	2	5	4	8	2	7	6	9
<b>Coconino</b>	5	1	5	0	6	4	3	2	6	2	10
<b>Gila</b>	1	1	1	1	2	5	5	5	4	5	9
<b>Graham</b>	0	2	1	1	2	2	0	1	6	2	2
<b>Greenlee</b>	0	1	1	0	0	1	0	0	0	0	1
<b>Maricopa</b>	114	110	105	123	149	163	214	224	230	241	298
<b>Mohave</b>	2	0	1	1	11	11	9	8	7	10	6
<b>Navajo</b>	0	3	1	1	2	2	6	2	3	3	7
<b>Pima</b>	62	61	44	49	71	82	73	95	97	91	108
<b>Pinal</b>	5	4	4	1	14	8	12	14	6	12	8
<b>Santa Cruz</b>	0	0	1	1	0	3	0	4	2	2	5
<b>Yavapai</b>	2	9	1	2	11	8	12	9	13	7	15
<b>Yuma</b>	4	2	2	1	3	4	3	8	5	5	6
<b>La Paz</b>	0	0	0	1	0	0	1	3	1	2	4
<b>Unknown</b>	0	0	0	0	5	12	4	15	15	17	14
<b>TOTAL</b>	201	198	174	185	283	310	356	395	403	405	507



**TABLE 19**  
**CHANGES IN THE NUMBER OF DEATHS FROM UNINTENTIONAL POISONING\***  
**BY DRUGS, MEDICAMENTS AND BIOLOGICALS, ARIZONA, 1988-1998**

	Year										
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
E.850.0 Opiates and related narcotics (codeine, morphine, opium, heroin, methadone)	11	31	29	15	24	48	64	94	82	49	72
E850.1-E.850.9 Analgesics, antipyretics, antirheumatics	6	3	3	1	6	2	5	6	5	10	9
E851-E853, E854.0-E854.1, E854.3 Barbiturates, tranquilizers, sedatives and other psychotropic agents	4	4	4	4	4	9	8	4	5	4	3
E854.2 Psychostimulants (amphetamine)	6	4	2	2	5	12	22	15	8	13	7
E855.0-E855.1, E855.3-E855.9 Central nervous system depressants	0	1	1	0	1	1	1	1	0	1	2
E855.2 Local anaesthetics (cocaine, lidocaine, procaine, tetracaine)	34	29	11	30	27	28	37	22	35	23	39
E856-E857 Antibiotics and anti-infectives	0	0	1	0	0	0	0	0	0	0	0
E858.0-E858.7 Other specified medicaments	4	2	3	2	5	3	3	4	3	4	3
E858.8-E858.9 Other unspecified drugs and medicaments	32	24	27	23	53	50	83	73	129	182	226
<b>TOTAL</b>	<b>97</b>	<b>98</b>	<b>81</b>	<b>77</b>	<b>125</b>	<b>153</b>	<b>223</b>	<b>219</b>	<b>267</b>	<b>286</b>	<b>361</b>

\* ICD-9 codes E850-E858. Excludes drugs, medicaments and biological substances causing adverse effects in therapeutic use (E930-E949).

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Our Web site at <http://www.hs.state.az.us/plan/ohpes.htm> provides instantaneous access to a wide range of statistical information about health status and use of health care in Arizona. The [\*Arizona Health Status and Vital Statistics\*](#) annual report examines trends in natality, mortality and morbidity towards established health objectives. Additional data can be found in the special reports and studies focused on differences in the health status by ethnic group, suicide mortality, unintentional injury mortality among children and adolescents, firearm-related fatalities, unintentional drowning deaths, drug-related mortality, teenage pregnancy and abortion practices in Arizona. The [\*Monthly Vital Statistics Bulletin\*](#) has the most up to date information on births, deaths, marriages and divorces.



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**Office of Epidemiology and Statistics  
Bureau of Public Health Statistics  
Public Health Services  
ARIZONA DEPARTMENT OF HEALTH SERVICES**

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